

Ebn Sina

Senior Software Engineer · Distributed Systems

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SUMMARY

Software engineer with 10 years of experience (since 2016) building distributed backend systems: video infrastructure, event pipelines, deployment tooling and the products on top of them. Designs and runs production systems end to end in Go, Rust and C++, with TypeScript, Svelte and React front ends.

SKILLS

- **Languages:** Go, Rust, C++, TypeScript, SQL, Swift
- **Backend & distributed systems:** gRPC, REST, GraphQL, event-driven architecture, job queues, multi-tenant SaaS, leasing and failure recovery
- **Data:** PostgreSQL (row-level security, partitioning), ClickHouse, Kafka, Redis, S3
- **Video & edge:** libav/ffmpeg, CMAF, DASH, HLS, RTMP, SRT, DRM, CDN, nginx/OpenResty
- **Frontend:** SvelteKit, Svelte 5, React, React Native, Tailwind CSS
- **Platform:** Linux, Docker, CI/CD, observability, self-hosted infrastructure

EXPERIENCE

Vice President of Engineering, Tenbyte

Dhaka, Bangladesh | Nov 2025 – Present

- Designed and largely wrote four production systems: a distributed transcoder, a playback analytics platform, an AI voice-calling platform and a player SDK.
- Distributed transcoder: Go control plane on PostgreSQL orchestrating a fleet of C++/libav workers over gRPC; chunked parallel encoding packaged as CMAF for DASH and HLS (H.264, HEVC, AV1).
- Capacity-aware scheduling with leases, generation-guarded compare-and-swap and per-tenant fair share, so a worker lost mid-encode is reclaimed and rescheduled automatically.
- Analytics: Kafka ingest into ClickHouse with materialized aggregates, monthly partitions and TTL retention, plus a tracking SDK published on npm.
- AI calling platform: Go services on partitioned PostgreSQL, Postgres-backed job queue, Redis semaphores, envelope-encrypted customer data, HMAC-signed keys and webhooks with outbox retry.
- Multi-tenancy with row-level security, per-tenant quotas and billing-grade metering; media parsing sandboxed with no credentials or network.

Senior Software Engineer, Tenbyte

Dhaka, Bangladesh | Sep 2025 – Nov 2025

Software Engineer, Amharc Tech

Dublin, Ireland (remote) | Dec 2021 – Aug 2025

- Built features across a field-service management platform used by contractors across Ireland and the UK: jobs, scheduling, stock, billing and CRM.
- Built the internal CRM, the reporting dashboards and e-commerce for parts and services, tied into the job-scheduling records.
- Integrated Stripe subscription billing: invoicing, failed-payment handling and plan changes.
- Contributed offline handling and sync to the iOS and Android apps used on site; GDPR-compliant, ISO 27001-certified infrastructure.

Web Developer, Planet Nine

Amsterdam, Netherlands (remote) | Jun 2019 – Nov 2021

- Built data-driven web components under strict file-size and performance budgets, rendering identically across browsers and platforms.

Instructor, Let's Learn Coding

Dhaka, Bangladesh | Nov 2017 – May 2019

- Taught web development to over 2,000 students: JavaScript, React, Node.js and Python; designed the curriculum and built the course platform.

PROJECTS

Self-hosted deployment platform

Rust, Axum, PostgreSQL, Docker, Caddy, SvelteKit

Deploy apps to Linux servers you already own, with automatic HTTPS, health-checked rollouts and one-click databases. Self-hosted for free or as a hosted service.

Video platform

Go, ffmpeg, PostgreSQL, ClickHouse, S3

Video transcoding and delivery. Upload once and get an adaptive stream that plays on any phone, on any connection, with signed playback and per-minute billing.

Content delivery network

Go, OpenResty, PostgreSQL, ClickHouse

A CDN in front of a website or storage bucket: custom domains with free certificates, cache rules, a firewall and real-time visitor analytics.

Live streaming

Go, MediaMTX, ffmpeg, S3

Live streaming on your own channel. Go live from OBS or a browser, reach viewers as adaptive HLS, and find the recording already waiting as a video.

EDUCATION

University of Dhaka